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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
IO/580,336	05/24/2006	Shun Takahashi	ITO-105-PCT	5569
77464	7590	05/27/2010	EXAMINER	
IPUSA, P.L.L.C 1054 31ST STREET, N.W. Suite 400 Washington, DC 20007			NERANGIS, VICKEY MARIE	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			05/27/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPUSA@IPUSAPAT.COM  
uspa-weeks@ipusapat.com  
ips@itohpat.co.jp

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,336	<b>Applicant(s)</b> TAKAHASHI ET AL.	
	<b>Examiner</b> Vickey Nerangis	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 21-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/4/09</u> . | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
2. No new grounds of rejection are set forth below. Thus, the following action is properly made final.

#### ***Claim Rejections - 35 USC § 103***

3. Claims 21-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohanty (US 2003/0216496) in view of Maxfield (WO 93/11190).

The rejection is adequately set forth in paragraph 5 of Office action mailed on 10/23/2009 and is incorporated here by reference.

#### ***Double Patenting***

4. Claims 21-30 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 3 of copending Application No. 11/628,625 (published as US 2008/0069993).

The rejection is adequately set forth in paragraph 6 of Office action mailed on 10/23/2009 and is incorporated here by reference.

#### ***Response to Arguments***

5. Applicant's arguments filed 2/19/2010 have been fully considered but they are not persuasive. Specifically, applicant argues (A) that Maxfield does not teach that the substituent is

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“directly” bonded to the substituted silyl group; (B) that Maxfield fails to disclose an alkyl group substituted with substituents like claimed in claim 26; and (C) that claim 3 of US appl. ‘625 cannot be relied upon in the obviousness-type double patenting rejection.

With respect to argument (A), first, it is noted that claim 21 does not mandatorily require the presence of a substituted alkyl group. See lines 5-6 of the claim which states that the substituted group comprises “a substituted or non-substituted alkyl group” (emphasis added). Maxfield clearly teaches the use of non-substituted alkyl groups. Second, the newly added limitation “directly bonds” does not exclude Maxfield’s “R<sup>3</sup>” linking group because the groups as claimed do not exclude linking groups because the claimed groups also include the linking groups. For instance, an “amino group” reads on groups other than -NH<sub>2</sub> such as an alkylamino. Third, Maxfield discloses the use of a swelling/compatibilizing agent with groups such as an amine and vinyl (page 14, lines 30-31; page 18, lines 20-31) and a vinyl group such as allyltrimethoxysilane (page 19, line 19).

With respect to argument (B), on page 44, lines 1-10, note amide and ester groups which are representative of Z<sup>1</sup>. Also, Maxfield discloses aliphatic R<sup>3</sup> groups on page 44, lines 2-4.

With respect to argument (C), applicant’s arguments are unpersuasive given that claim 3 includes all the limitations of claim 1 as it is dependent on claim 1. Because claim 1 discloses a biodegradable resin comprising phyllosilicate and claim 3 discloses that the phyllosilicate has bonded a substituted silyl group having a substituted or unsubstituted alkyl, the instant claims have been rejected by claim 3 of US appl. ‘625. While the specifics of the silyl group are not claimed by US appl. ‘625, the examiner properly relied upon the portion of the specification which provided support for claim 3. Case law holds that those portions of the specification

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which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. *In re Vogel*, 422 F.2d 438, 164 USPQ 619,622 (CCPA 1970).

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Nerangis whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

vn

/Vickey Nerangis/  
Primary Examiner, Art Unit 1796